The forty-ninth meeting of the Society was held on the evening of September 6, 1913, at the Monviso Hotel, 2124 Polk Street, San Francisco.

President Van Dyke in the chair.

The minutes of the preceding meeting were read and approved.

Eight members responded to roll call as follows:

E. C. Van Dyke, Chas. Fuchs, J. E. Cottle, L. R. Reynolds, R. F. Sternitzky, F. W. Nunenmacher, F. E. Blaisdell, Sr., Chas. L. Fox.

The following six guests were present:

Mrs. Chas. Fuchs, Mrs. L. R. Reynolds, Mrs. J. E. Cottle, Mrs. F. E. Blaisdell, Mrs. F. W. Nunenmacher, Mr. Wm. P. Breeze.

The Treasurer's report was then read.

A communication from Mr. Fordyce Grinnell, dated Sep-

tember 2, 1913, Pasadena, California, was read.

Mr. Cottle stated that a visitor was present, who was interested in Lepidoptera, and proposed Mr. Wm. P. Breeze for membership. The proposal was seconded by Mr. Fuchs and F. E. Blaisdell. A unanimous vote followed. Mr. Breeze was declared a member of the Society.

Mr. Cottle reported his Summer's collecting trip to Truckee

and the Lake Tahoe region.

Mr. Fox described his outing in July at Carville, Trinity

County, California.

Mr. Fuchs stated that he had spent his vacation at St. Helena, Napa County, California. He described collecting microcoleoptera by the use of nets while in a rapidly moving automobile. The catch consisted of numerous specimens of species of Carabidæ, Pselaphidæ, Staphylinidæ, Trichopterigidæ and Anthicidæ, that were flying at twilight.

Mr. Nunenmacher said that he had just recently completed a three months' collecting trip through Northern and Northeastern California, and Southern Oregon. He reported his observations on *Omus*, elucidating his notions in regard to the distribution of the several races, and stated that Dr. Walther Horn had described three new subspecies from the material that he had collected.

Mr. Sternitzky made a short report on a trip to Lake

Tahoe, supplementary to one read at the forty-seventh meeting of the Society.

Many interesting specimens were exhibited by the several

members present.

A box of *Omus* and other species of Coleoptera from Southern Oregon and Northern California exhibited by Mr. Nunenmacher was particularly interesting.

Mr. Fox showed a box of Lepidoptera.

Adjournment. Refreshments and social discourse followed, during which Dr. Blaisdell exhibited a group photograph of the veteran collector Mr. Chas. Fuchs, Mr. Beverly Letcher, and himself. The photograph was taken on the occasion of an outing when Mr. Fuchs and the Secretary visited Mr. Letcher at Mill Valley on September 7, 1901. The photograph was reproduced in duplicate by Mr. Reynolds and the members who knew Mr. Letcher intimately were presented with one.

F. E. BLAISDELL, SR., Secretary.

The fiftieth regular meeting of the Society was held on the evening of December 13, 1913, at the residence of Dr. F. E. Blaisdell, 1520 Lake Street, San Francisco, Calif.

President Van Dyke in the chair.

The minutes of the preceding meeting were read and approved.

Eleven members responded to roll call as follows:

Dr. E. C. Van Dyke, Percy Baumberger, F. W. Nunenmacher, J. E. Cottle, Miss Julia Wright, Dr. F. E. Blaisdell, R. F. Sternitzky, Miss Alice Eastwood, L. R. Reynolds, C. L. Fox, Wm. P. Breeze.

Nine guests were in attendance:

Mrs. J. E. Cottle, Mrs. F. E. Blaisdell, Mrs. Anna G. Blaisdell, F. E. Blaisdell, Jr., Mrs. Emily C. Peek, Miss J. Bastian, Mrs. L. R. Reynolds, Mrs. J. Wright, Miss Bessie Wright.

The Treasurer's report was then read.

. A discussion was then indulged in, with regard to what should be done in order to bring about a meeting of Entomologists here in 1915. Mr. Cottle made a motion that the President or Secretary be instructed to urge Mr. Alex. D. Mac-Gillivray, Secretary-Treasurer of The Entomological Society of America, to do all he could to bring about a meeting here at that time. The motion was carried.

The welfare of the Society was discussed. It was urged that the scope of the Society be extended and that it be put on a more scientific basis; that formal meetings be held most of the year and that a Field-day be maintained. A committee should select the place for the outing. A motion was made and carried that Dr. Blaisdell and Mr. Cottle act as a committee of two to select a suitable locality.

Mr. Cottle stated that he was anxious to see the membership of the Society increased and that greater effort be made to help all Entomologists along.

Mr. Nunenmacher in commenting upon the Society, stated that the meetings were not held punctually, and that the exhibits presented by the different members were often neglected—not examined or discussed. That the Society should be more definite in its procedures and give more time to the discussion of the exhibits, especially to aid amateurs in determining the species exhibited.

It was the opinion of a number of the members, namely: Reynolds, Van Dyke, Sternitzky and Baumberger, that formal meetings should be held, and that a banquet be held once a year, to promote good feeling and sociability. Mr. Baumberger was emphatic in his view that a definite programme should be prepared for each meeting and that the President should see that it was carried out in a business-like manner.

Water collecting after the flooding of meadows, cloud-

bursts, et cetera, was discussed by Mr. Reynolds.

Dr. Van Dyke reported his collecting at Carville, Trinity County, Calif. *Elateridæ* and *Cerambycidæ* were especially abundant. Mr. Reynolds and himself had both taken the typical form of *Eleodes granulata*, according to the determination of Dr. Blaisdell.

Mr. Nunenmacher spoke about the distribution of the species of *Omus*. Dr. Van Dyke took up the discussion, not only of *Omus* but other species. Miss Eastwood stated that the distribution of plants corresponded to what had been said in reference to Coleoptera.

Mr. Fox exhibited a box of exotic Lepidoptera, and a species of *Colias* taken at Carville. It was thought probably to be *Colias occidentalis*.

Mr. Breeze exhibited Catocala pura among other species.

Mr. Nunenmacher passed around a box of Coleoptera collected on his trip through Northern California.

Adjournment. An informal lunch was served.

F. E. BLAISDELL, SR., Secretary.

The fifty-first meeting of the Society was held on the evening of April 25, 1914, in the Council Room of the California Academy of Sciences, 343 Sansome Street, San Francisco.

President Van Dyke in the chair.

Minutes of the preceding meeting were read and approved. Eleven members answered to roll call as follows:

E. C. Van Dyke, Percy Baumberger, F. W. Nunenmacher, J. E. Cottle, J. C. Huguenin, Miss Julia Wright, F. E. Blaisdell, Sr., R. F. Sternitzky, L. R. Reynolds, C. L. Fox, Wm. P. Breeze.

Seven guests were present, namely:

Miss Alberta Jackson, Master Winthrop Sargent, W. W. Sargeant, Geo. Menken, Mrs. J. E. Cottle, Mrs. F. E. Blaisdell, Mrs. L. R. Reynolds.

The Treasurer's report was read.

Mr. Fordyce Grinnell in a written communication stated that he had recently had a letter from Mr. Wm. M. Mann, who was in Egypt collecting Ants and Beetles. Attention was also called to a recent publication by Dr. C. C. Adams, titled "A Guide to the Study of Animal Ecology." It is published by Macmillan & Co. Field students will find it very useful. On March 15th, Mr. Grinnell and Mr. Clemence went to San Bernardino and collected on Little Mountain, north of the city, and obtained Anthocharis cethura and creusa, Melitæa wrightii and gabbii, Lycæna polyphemus, the Spring-form of Lycæna acmon, a small noctuid—Heliosea pictipennis, and a day-flying noctuid—stylopoda. On March 14th, at La Crescenta, a good series of Lycæna sagittigera and a variety (female) of Colias eurydice like the Eastern cæsonia were secured.

Mr. Cottle made a motion that the Secretary write to the Trustees of the Academy and express the Society's appreciation of being permitted to hold its meetings in the Council Room. The motion was unanimously carried and the Secretary so instructed.

President Van Dyke stated that he had just returned from a visit to see Mr. Fuchs, whom he found slowly failing in health and seriously ill.

Suggestions relative to a location to hold the Annual Field Day was called for. "At the Pines" on the Antioch electric railway line, was mentioned. No action was taken.

A discussion with regard to the meeting of the Entomologists of America in San Francisco was next indulged in. It was reported that communications had been sent on to their meeting at Atlanta, Georgia, and it seemed that the consensus of opinion was that their next meeting would be held here in 1915, about the time that the A. A. A. S. holds its meeting. The meeting is to be in the form of a Congress. Such being the case different Societies and eminent Entomologists not members would be able to take part. The different sections could hold their sessions at different times and places. The Biological Section could meet at Stanford University, and Economics at the University of California, Berkeley. All local Entomologists should get their collections and material in order, as well as the different institutions.

Mr. Nunenmacher thought that the western Entomologists should get together and make up a big show exhibit, getting representatives of all the species of Insects in California as far as possible, so that the visitors in 1915 would be able to gain some knowledge of the Pacific Coast or California fauna. Such a task was considered impracticable.

Mr. Cottle favored the Society's acting as a host and arranging for an informal banquet. President Van Dyke suggested that a committee be appointed to look into the matter. A motion to that effect being made, seconded and carried, the President appointed Cottle, Reynolds and Blaisdell to formulate a plan.

Mr. Baumberger thought that a committee should be appointed to get in touch with the Entomologists who were likely to meet here in 1915, to learn of their specialties and to plan their entertainment by the Pacific Coast specialists in the same groups. President Van Dyke thought that it would be easy to do so.

Dr. Blaisdell stated that he was studying the Tenebrionid material collected in Southern Oregon and Northern California

by Mr. Nunenmacher, during a trip made in the preceding Summer. Several new species of *Eleodes* were among the large series taken. The material is rich in specimens taken in regions never collected over before, and greatly advances our knowledge of the coleopterous fauna of Northern California.

Mr. Nunenmacher in discussing the different species of *Omus*, thought that the arrangement of the specimens of each species or subspecies in a block-system, helped greatly to bring out the specific characteristics, especially when they were closely allied. It was stated that another trip would be undertaken within a short time. The plan is to take up the region where he left off on the preceding trip and to continue southward in the Sierras on their western slopes through Central California in a systematic search for *Omus*.

Mr. Breeze stated that Tuolumne Meadows is the lepidopterists' paradise. It is Lembert's old collecting grounds. The

altitude is 9000 feet.

Mr. Sternitzky stated that he had been very much annoyed at the trouble caused by the old-fashioned, cumbersome acetylene-gas generator used by lepidopterists for collecting, and had been trying a few different types and found the square generator used on the earlier models of the Ford auto about as handy as any that he knew of. It is made of brass and is very compact and easily handled. He also said that owing to lack of space for breeding room for lepidopterous larvæ that he had devised separate cages for rearing his captures according to his own ideas. The boxes vary in size from 5x5x3 inches to any size that one may wish. The bottom is of screening and also the top of the cover of the box; this gives the larvæ all the fresh air and light that they need and the boxes can be placed six deep on a shelf. The collector thus has the advantage of keeping his larvæ separated. This method is of especial advantage when dealing with species that relish their brethren as well as the food plant. A sample of the cages was exhibited.

Dr. Van Dyke spoke of several bark beetles that depredate on cupressine trees; two species on the Monterey Cypress—Plæosinus cupressi and cristatus being economically important as they attack the terminal twigs and kill them. The distribution of the Coast Pines and the Coleoptera that are related to them was next considered. The chaparral and its fauna was then discussed, particular attention being called to what takes

place after a fire. Botanists have been studying this latter with regard to its economic status, noting especially the manner of sprouting after a fire. The shrubs are necessary for preserving the soil; after a fire many species are killed to the ground, or so injured that they die. These become the food for certain species of beetles—as the Buprestidæ and Cerambycidæ—when the shrub is only partly killed; in these the species get a hold. Powder post beetles—Bostrichidæ and Ptinidæ—are prone to attack the older and drier wood. From a forestry standpoint the work of the Ptinidæ is very important to economics.

The Doctor then exhibited the Academy's Museum boxes, in which the collection of insects is preserved, drawing attention to their important and essential structural details.

Mr. Fox exhibited specimens of *Parnassius* and some exotic Coleoptera.

Mr. Breeze showed some Eastern and Californian Lepidoptera.

Mr. Sternitzky, a specimen of *Corymbites remotistriatus* Say, taken at Lagunitas, Marin County; also, other Coleoptera and Lepidoptera.

Dr. Van Dyke exhibited boxes of specimens in the Academy's collection.

Adjournment.

F. E. Blaisdell, Secretary.

No attempt was made to hold the fifty-second meeting or Field-day of the Society.

F. E. Blaisdell, Secretary.

